

pharmaceutical active substance; (b) providing a cyclic carbonate of the general formula (I); and (c) combining the composition and the cyclic carbonate. No comparison is required in any of the steps recited in the claim. The preamble of the claim indicates that the method enhances the moisturizing properties of a cosmetic or pharmaceutical preparation.

Applicants respectfully submit that one of ordinary skill in the art would be reasonably apprised of the metes and bounds of the claims, particularly when the claims are read in light of the Specification. It is clear that the moisturizing properties are “enhanced” relative to the originally provided preparation with which the cyclic carbonate is combined. Moreover, one of ordinary skill in the art would recognize such properties and understand the mechanisms by which such properties may be evaluated, particularly in light of the Specification. (*See, e.g.*, Applicants’ Spec., pp. 17-18). Regardless of whether the term “enhancing” is relative, which Applicants submit it is not, the claim language is still definite. The fact that a term is relative does not automatically render the language indefinite. Comparative language has been deemed to be acceptable where either a standard is provided, or where one of ordinary skill in the art would understand the degree in light of the Specification. (*See, e.g.*, M.P.E.P. §2173.05(b)). In this case the moisturizing properties are “better than”, or in other words, “enhanced” in comparison to the original moisturizing properties. The original moisturizing properties provide a standard for “enhancement”.

Thus, Applicants respectfully submit that claims 17-25 are not indefinite and withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

In Paper No. 6, the Examiner rejects claims 7-25 under 35 U.S.C. §103(a), as being unpatentable over German Patent Publication DE 197 56 454 C1 of Hensen, *et al.* (hereinafter referred to as “Hensen”), either alone, or alternatively, in view of U.S. Patent No. 5,733,536 of Hill, *et al.*, (hereinafter referred to as “Hill”).

The Examiner contends that Hensen teaches the use of glycerol carbonate as an emulsifier, in an amount of from 1 to 50% by weight, based on the weight of surfactants present in a cosmetic composition. The Examiner also contends Hensen teaches that glycerol carbonate can be used as a replacement for silicone emulsifiers, that glycerol carbonate provides brightening and antistatic activity, and that glycerol carbonate improves dry combing properties.

The Examiner acknowledges that Hensen fails to teach the use of glycerol carbonate in method of moisturizing.

The Examiner contends that Hill teaches hair care compositions which contain silicone dispersions. The Examiner also contends Hill teaches that the dispersed silicones provide conditioning and moisturizing effects.

The Examiner argues that while Hensen fails to teach any moisturizing effect associated with the compositions taught therein, that the taught composition “meets the limitation of the instant claims,” and thus the Examiner argues, “the moisturizing benefit of the composition is necessarily present.” (Paper No. 6, p. 3). Alternatively, the Examiner argues that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the composition taught by Hensen to provide moisture on skin or hair in accordance with Hill, “because of the expectation that the glycerol carbonate-containing composition would successfully provide similar moisturizing effect as silicone.” (*Id.*).

Applicants strenuously, but respectfully traverse the Examiner’s rejection and the arguments and contentions set forth in support thereof for the following reasons.

To begin with, one embodiment of Applicants’ claimed invention is directed to a method of moisturizing a substrate, wherein the method comprises: (a) providing a substrate to be moisturized; (b) providing a cosmetic or pharmaceutical composition comprising a cyclic carbonate of the general formula (I); and (c) contacting the substrate with the cosmetic composition. Another embodiment of Applicants’ claimed invention is directed to a method of enhancing the moisturizing properties of a cosmetic and/or pharmaceutical preparation, wherein the method comprises: (a) providing a composition comprising at least one cosmetic or pharmaceutical active substance; (b) providing a cyclic carbonate of the general formula (I); and (c) combining the composition and the cyclic carbonate.

Applicants submit that neither Hensen alone, nor a combination of Hensen and Hill establishes a *prima facie* case of obviousness.

It is well-settled that in order to establish *prima facie* obviousness, the Examiner must show all of the following three criteria: (1) there must be some suggestion or motivation to modify or combine the references as suggested by the Examiner (it is not sufficient to say that

the cited references can be combined or modified without a teaching in the prior art to suggest the desirability of the modification); (2) there must also be a reasonable expectation of success; and (3) the references as combined must collectively teach or suggest all limitations of the claims. The teaching or suggestion to combine and modify the cited art and the reasonable expectation of success must both be found in the prior art and not in the Applicant's Specification. (M.P.E.P. §2143). *Prima facie* obviousness based upon a single reference requires that the single reference satisfy all three criteria.

The Examiner has argued that “the composition of Hensen et al. meets the limitation of the instant claims.” (Paper No. 6, p. 3). As mentioned above, the Examiner then argues that “the moisturizing benefit of the composition is necessarily present.” (*Id.*). Applicants respectfully submit that the Examiner has applied an incorrect standard of inherency. While the Federal Circuit has held that products of identical chemical composition can not have mutually exclusive properties, this does not apply to claims directed to processes of use. Applicants are not attempting to claim a known composition. Applicants’ claims are directed to new and unobvious uses of cyclic carbonates.

The discovery of a new use for an known composition based on unknown properties of the composition may be patentable to the discovered as a process of use. (*See*, M.P.E.P. §2112.02, citing *In re Hack*, 245 F.2d 246, 248, 114 USPQ 161, 163 (CCPA 1957)). The Federal Circuit has repeatedly agreed, most recently in Bristol-Myers Squibb Co. v. Ben Venue Labs, Inc., in which the court stated that, “[it] is correct that new uses of known [compositions of matter] may be patentable.” (*See, Bristol-Myers Squibb Co. v. Ben Venue Labs, Inc.*, 246 F.3d 1368, 1376, 58 USPQ.2d 1508 (Fed. Cir. 2001)). The Bristol-Myers Squibb court went on to explain that “[n]ewly discovered results of known processes directed to the same purpose are not patentable because such results are inherent.” (*See, id.*, citing *In re May*, 574 F.2d 1082, 197 USPQ 601 (CCPA 1978)). Thus, when considering the patentability of a claim directed to a process of use, the correct analysis requires the Examiner to consider whether the use is new or old. It is only where the use is old that newly discovered properties are deemed inherent.

Hensen teaches the use of glycerol carbonate as an emulsifier in a surface active composition. Hensen does not teach contacting a substrate to be moisturized with a cyclic carbonate. Hensen does not suggest any moisturizing benefit associated with cyclic carbonate. Moreover, Hensen teaches the inclusion of from 1 to 50% by weight based on the amount of surfactant present. Without knowing the amount of surfactant present, such a teaching does not necessarily equate to an amount of from 1 to 50% by weight based on the composition as a whole.

Applicants submit that Hensen does not teach the claimed use, nor does the reference suggest such a use. Furthermore, there is no teaching or suggestion in Hensen which would motivate one of ordinary skill in the art to modify the teachings in order to arrive at Applicants' claimed invention. Finally, nothing in Hensen would provide a reasonable expectation of successfully moisturizing a substrate, as claimed by Applicants.

Combining the teachings of Hill with those of Hensen does not render the claimed invention obvious either. Hill teaches a specialized silicone dispersion which is effective because the use of certain surfactants allows the orientation of the silicones in such a manner that the polar and non-polar moieties are generally opposite of each other. (*See*, Hill, col. 3, line 57 through col. 4, line 13 & col. 4, lines 33-38).

Hill specifically states that other silicones are ineffective and suggests improvement via the use of specialized dispersions capable of planar orientation. (*See*, Hill, col. 5, line 55 through col. 6, line 6). Even if one of ordinary skill in the art were motivated to replace silicone in hair-care formulations with cyclic carbonates, based upon the unrelated teachings of Hensen, Hill would suggest otherwise. A composition with performance similar to silicone would be unacceptable for use in Hill. Hill teaches the use of specialized dispersions to obtain acceptable properties. In other words, Hill teaches away from the use of ordinary silicones. Thus, one of ordinary skill in the art would not be motivated to replace the specialized dispersions of Hill with a replacement for an ordinary silicone additive. Furthermore, Hensen teaches the use of glycerol carbonate as an emulsifier. Hensen does not teach or suggest replacing silicone moisturizers present in hair-care formulations with cyclic carbonates.

Applicants respectfully submit that the combined teachings of Hensen and Hill fail to establish a *prima facie* case of obviousness. First, the combination of references fails to teach or suggest each and every element of the claimed invention. Neither reference teaches or suggests moisturizing a substrate by contacting the substrate with a cyclic carbonate. Second, there is no teaching or suggestion which would motivate one of ordinary skill in the art to modify the teachings of Hill as suggested by the Examiner to arrive at Applicants' claimed invention. In fact, Hill teaches away from such a modification. Third, given the express inadequacy of normal silicones recited by Hill, one of ordinary skill in the art would have no reasonable expectation of success.

Thus, Applicants submit that the Examiner has failed to establish a *prima facie* case of obviousness based on the cited references, as the three criteria necessary to establish such a case of *prima facie* obviousness have not been satisfied. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of the claims under 35 U.S.C. §103(a).

Finally, even if it were assumed, for argument's sake, that the claimed invention could be shown to be *prima facie* obvious based upon the cited references, which it has not been, any such *prima facie* obviousness would be overcome by Applicants' showing of significantly improved results with respect to moisturization and moisture duration.

As described in the Specification, for example at page 2, lines 6-9, it has surprisingly been found that cyclic carbonates have excellent moisture-dispensing properties, and an unexpectedly long-lasting effect in comparison to other prior art moisturizers. In accordance with the present invention, moisturization can be accomplished with less composition, in a shorter amount of time. The cyclic carbonate moisturizers leave less residue and show less tackiness.

As shown in the Examples, beginning at page 17, line 24, moisturization accomplished by contacting a substrate (*e.g.*, skin) with a cyclic carbonate results in significantly improved moisture content and substantially improved moisture longevity, when compared to moisturization via non-cyclic carbonate containing moisturizers. (*See*, page 19, Table 2).

Applicants submit that the evidence set forth in the Specification is sufficient to rebut any alleged *prima facie* case of obviousness.

Applicants submit that all pending claims patentably distinguish over the prior art of record and known to Applicants, either alone or in combination. Accordingly, reconsideration, withdrawal of the rejections and a Notice of Allowance are respectfully requested.

Respectfully submitted,

THOMAS GASSENMEIER, et al.

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By: 
AARON R. ETTELMAN
Registration No. 42,516
COGNIS CORPORATION
2500 Renaissance Blvd., Suite 200
Gulph Mills, PA 19046
Telephone: (610) 278-4930
Facsimile: (215) 278-4971
E-Mail: AARON.ETTELMAN@COGNIS-US.COM

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